

Response to Office Action mailed November 1, 2007  
U.S. Application No. 09/989,898  
Page 12 of 16

RECEIVED  
CENTRAL FAX CENTER

JAN 30 2008

## REMARKS

### I. STATUS OF THE CLAIMS

Claims 25-58 are pending in the present application, prior to this Amendment. Claims 40, 43-48, 50, and 52-58 previously were withdrawn. In the Office Action mailed November 1, 2007, claims 25-39, 41, 42, 49, 51, and 52 were rejected.

Claims 25, 28, 32, 35, 39, and 49 are amended hereby. No new matter is presented. Please cancel claim 34.

### II. CLAIM REJECTIONS UNDER 35 U.S.C. §103(a)

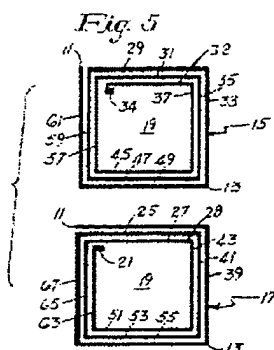
In the Office Action, claims 25-39, 42, 49, and 52 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,583,099 to *Reilly et al.* in view of U.S. Patent No. 5,340,436 to *Beckett* and U.S. Patent No. 3,913,219 to *Lichtblau*. This rejection is respectfully traversed. Further, claims 41 and 51 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Reilly et al.* in view of *Beckett*, *Lichtblau* and U.S. Patent No. 3,764,459 to *George*. This rejection also is respectfully traversed. Nonetheless, it is believed that these rejections are obviated in view of the amendments to claims 25, 28, 32, 35, 39, and 49, from which claims 26, 27, 29-31, 33, 36, 41, 42, 51, and 52 depend directly or indirectly. Claim 34 is canceled.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference or combination of references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP §2142. It is submitted that at least one of these elements is not satisfied and that a *prima facie* case has not been made.

Response to Office Action mailed November 1, 2007  
 U.S. Application No. 09/989,898  
 Page 13 of 16

**A. U.S. Patent No. 4,583,099 to *Reilly et al.* ("*Reilly*") does not teach or suggest the presently claimed invention.**

*Reilly* is directed generally to a resonant tag circuit for use with an electronic security system. The tag circuit comprises an electrically insulating substrate having a spiral conductive path on each surface of the substrate. The conductive paths form a "distributed capacitor", i.e., a circuit element having a portion that serves as an inductor and a portion that serves as a capacitor (col. 6, line 25). To form the capacitor portion, a portion of the spiral conductive paths are positioned to overlap (col. 6, lines 42-47), as shown in FIG. 5 (reproduced below). However, the remaining portions of the conductive paths "can be offset from each other so their function as inductor coils does not contribute to capacitance" (col. 6, lines 47-50).



To expedite prosecution, claims 25, 28, 32, 35, 39, and 49 are amended to specify that:

- the structures on each side of the substrate have a substantially identical length, substantially identical width, and substantially identical thickness;
- the width of the respective structure is substantially uniform along its length; and
- the structures are disposed on the substrate substantially in register with one another, such that the structures are mirror images of one another on opposite sides of the substrate.

Response to Office Action mailed November 1, 2007  
U.S. Application No. 09/989,898  
Page 14 of 16

*Reilly* does not teach or suggest such a structure. First, the structures on each side of the substrate of *Reilly* do not have a substantially identical length, width, and thickness. Instead, the structure of *Reilly* includes a conductive pattern on one side of the substrate that "is slightly wider than the conductive pattern on the opposite side of the insulative substrate to minimize the effect of undesirable misalignment of the opposing patterns" (col. 4, 45-51).

Further, the structures of *Reilly* do not have a substantially uniform width along the length of each structure. Instead, the structures are tapered, with the width of the structure decreasing towards the inner portion of the coil pattern (col. 4, lines 30-32).

Additionally, the structures on each side of the substrate of *Reilly* are not in complete register with one another, nor are they mirror images of one another. According to *Reilly*, only a portion of the conductive pattern on each side of the substrate should overlap. "The remaining portions of the spiral can be offset from each other so that their function as inductor coils does not contribute to capacitance." (col. 6, 47-50, FIGS. 5-9)

These structural differences are not trivial. In fact, the structures of *Reilly* are configured to achieve the opposite effect of the structures of the present invention. *Reilly* seeks to attain a high capacitance in a portion of the circuit. To achieve the desired capacitance, a portion of the structures on opposed sides of the substrate are offset from one another to generate a voltage difference between the structures: "[t]he inductor coils and amount of capacitance achieved between the overlapping inductor coil circuit paths (distributed capacitance) is such as to tune the circuit at the desired frequency, yielding a high "Q" factor, and strong antenna effect." (col. 4, lines 59-63) By contrast, the structures on each side of the substrate of the present invention are substantially identical mirror images of one another intended to perform the same function. As such, the structures of the present invention are not configured to create a voltage difference or capacitance between corresponding points on the structures on opposed sides of the substrate. Thus, the teachings of *Reilly* contravene the intended purpose of the present invention and vice versa.

Response to Office Action mailed November 1, 2007  
U.S. Application No. 09/989,898  
Page 15 of 16

**B. U.S. Patent No. 5,340,436 to *Beckett*, U.S. Patent No. 3,913,219 to *Lichtblau*, and U.S. Patent No. 3,764,459 to *George* do not supplement the deficiencies of *Reilly*.**

*Beckett* is directed generally to a method of selectively demetallizing an etchable metal layer that may be supported on a microwave transparent material substrate, generally a polymeric film. The method comprises applying a pattern of etchant-resistant material to the etchable metal layer corresponding to a desired pattern of non-etched metal, repeatedly contacting the etchable metal with an aqueous etchant material for a time at least sufficient to effect complete removal of the etchable metal from areas of the etchable metal layer not covered and protected by the pattern of etchant-resistant material, and washing spent etchant solution from the resulting etched polymeric film substrate (col. 1, line 56-col. 2, line 2).

*Lichtblau* is directed to a process for forming circuits by printing on both sides of a substrate. The circuits on each side of the substrate of *Lichtblau* differ from one another. As such, *Lichtblau* does not contemplate a method of making a *singular* functional feature having the desired feature thickness apportioned to opposed sides of a substrate.

*George* is directed to a metal structure that degrades when exposed to water. The metal structure includes various metal layers that are electrically connected to one another.

None of *Beckett*, *Lichtblau*, or *George* teach or suggest a method of making a singular functional feature composed of partial structures formed on each side of the web, where the first and second parts of the functional feature have a substantially identical length, width, and thickness, the width being substantially uniform along the length of the respective part of the functional feature, and where the first and second parts of the functional feature are disposed on the substrate in register with one another, such that the first and second parts of the functional feature are mirror images of one another on opposite surfaces of the substrate, as presently claimed.

Given that none of *Reilly*, *Beckett*, *Lichtblau*, or *George*, alone or in combination, teach or suggest the method of the present invention, the various combinations of *Reilly*, *Beckett*, *Lichtblau*, and *George* are insufficient to support a rejection of claims 25, 28, 32, 35, 39, and 49, or their respective associated dependent claims 26, 27, 29-31, 33, 36, 41, 42, 51,

Response to Office Action mailed November 1, 2007  
U.S. Application No. 09/989,898  
Page 16 of 16

RECEIVED  
CENTRAL FAX CENTER  
JAN 30 2008

and 52 under 35 U.S.C. §103(a). Thus, it is submitted that this rejection should be withdrawn.

### CONCLUSION

In view of the foregoing remarks, Applicant respectfully submits that the various rejections of the claims set forth in the non-final Office Action of November 1, 2007 have been addressed and overcome. Applicant further submits that all claims are in condition for allowance and requests that a Notice of Allowance be issued. If issues may be resolved through Examiner's Amendment, or clarified in any manner, a call to the undersigned attorney at (404) 879-2437 is courteously solicited.

The Commissioner is hereby authorized to charge any fees due, or credit any overpayment, to Deposit Account No. 09-0528.

Respectfully submitted,



Date: January 30, 2008

Dana E. Stano  
Reg. No. 50,750

Womble Carlyle Sandridge & Rice, PLLC  
P.O. Box 7037  
Atlanta, GA 30357-0037  
(404) 879-2437 (direct)  
(404) 879-2937 (facsimile)  
Atty. Docket No.: R029 1559/US (38400.0172.2)

WCSR 3783954v1